

REMARKS

Claims 1-4, 6, and 8-20 are pending in the application. Claims 5 and 7 have been canceled. New claim 20 has been added.

Drawings

A minor amendment has been made to Fig. 8 so that it is consistent with the statements in the specification.

The Examiner is respectfully requested to approve this drawing change.

Specification

Minor changes have been made to the specification to place it in better form for U.S. practice.

Claim Objections

(a) Claim 4 has been objected to because the language "to control drive of the pump" recited in claim 4, line 3 is unclear.

Claim 4 has been amended to overcome this objection. The Examiner is respectfully requested reconsider and withdraw this objection.

(b) Further, claims 9, 17, and 18 have been objected to because there is no antecedent basis for "the precedence ink removing means" recited in claim 9, line 2 and claim 17, line 4.

Claims 9 and 17 have been amended to provide a proper antecedent basis to overcome this objection. The Examiner is respectfully requested to reconsider and withdraw this objection.

Claim Rejections - 35 U.S.C. § 103

(a) Claims 1, 2, 5-11, and 16-18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Giori (USP 4,516,496) in view of Schaede (USP 5,222,432). This rejection is respectfully traversed.

Giori discloses an intaglio printing machine that includes a plate cylinder 1, inking device 8, a pre-wiping device 5, and a wiping device 6.

The intaglio printing machine of Giori, however, does not "remove ink before the ink is removed by the ink removing unit and return the removed ink to the inking unit, the ink recycling unit including precedence ink removing means which removes the ink from the intaglio plate cylinder, and ink returning means which returns the ink removed by the precedence ink removing means to the inking unit, the precedence ink means including a pre-wiping pattern roller in contact with the intaglio plate cylinder to transfer desired ink on the intaglio plate cylinder." Accordingly, as acknowledged by the Examiner in the Office Action, Giori does not disclose or suggest the "ink recycling unit" as recited in claim 1.

Schaede discloses an intaglio printing machine including a plate cylinder 1, a pre-wiping cylinder 2 in contact with the plate

cylinder 1, a cylinder 3 in contact with the pre-wiping cylinder 2, and a doctor plate 4 resting against the cylinder 3.

As stated in col. 3, lines 35-49, the doctor plate 4 has is a receiving region 5, provided with inlet openings 12, and ink pumps 11. Ink sucked through the inlet openings 12 by the ink pumps 11 is discharged through outlet openings 13 into a container (not illustrated) for receiving the ink.

Schaede, however, cannot remove only specific colored ink from the plate cylinder 1 because it does not have "precedence ink means including a pre-wiping pattern roller in contact with the intaglio plate cylinder to transfer desired ink on the intaglio plate cylinder." Therefore, the ink collected by the doctor plate 4 includes all kind of color ink on the plate cylinder 1 and cannot be recycled. Accordingly, Schaede does not disclose or suggest the "ink recycling unit" as recited in claim 1.

Therefore, even assuming, arguendo, that Giori and Schaede can be combined, Giori in view of Schaede fails to disclose or even suggest the "ink recycling unit" as recited in claim 1.

Claims 2, 6, 8-11, and 16, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Claim 17 is allowable because both Giori and Schaede do not have a "pre-wiping pattern roller" that "has at least one recovery patterned portion that is approximately the same as the supplying patterned portion of one of the ink supplying pattern rollers among the plurality of the ink supplying pattern rollers."

Therefore, even assuming, arguendo, that Giori and Schaede can be combined, Giori in view of Schaede fails to disclose or even suggest the "ink recycling unit" as recited in claim 17.

Claim 18, dependent on claim 17, is allowable at least for its dependency on claim 17.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Giori in view of Schaede, and further in view of Dillig et al. (USP 6,024,015). This rejection is respectfully traversed.

Claims 3 and 4, variously dependent on claim 1, are allowable at least for their dependency on claim 1.

Moreover, Dillig does not affect the patentability of claim 1. Dillig discloses an ink supply device wherein ink is supplied to an inking roller 1 and redundant ink is returned to the inking roller through pipes 10, 16 and a pump. However, such a recycle operation is only utilized for a mono-color printing operation. Because Dillig's ink supply device removes all redundant ink on a plate cylinder, if the device is utilized in a multi-color printing machine, mix-colored ink will be returned and the returned ink cannot be reused.

Therefore, Dillig does not disclose or suggest an "ink recycling unit" having "precedence ink means including a pre-wiping

pattern roller in contact with the intaglio plate cylinder to transfer desired ink on the intaglio plate cylinder," as recited in claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claim 19 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Giori in view of Schaede, and further in view of Motokawa (USP 4,119,836). This rejection is respectfully traversed.

Claim 19, indirectly dependent on claim 1, is allowable at least for its dependency on claim 1.

Moreover, Motokawa does not affect the patentability of claim 1. Motokawa discloses a heat generating element 8 that heats a blade 2. Motokawa, however, does not disclose or suggest an "ink recycling unit" having "precedence ink means including a pre-wiping pattern roller in contact with the intaglio plate cylinder to transfer desired ink on the intaglio plate cylinder," as recited in claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Allowable Subject Matter

Applicants appreciate the Examiner's indication that claims 12-15 would be allowable if rewritten in independent claim form including all of the limitations of the base claims and any intervening claims.

Claim 12 has been amended to include all of the limitations of claims 1, 2, 6, and 10 to place this claim in condition for allowance.

Claims 13-15, variously dependent on claim 12, are allowable at least for their dependency on claim 12.

A favorable determination and allowance of claims 12-15 is earnestly solicited.

New Claim

New claim 20, dependent on claim 17, is allowable at least for its dependency on claim 17.

A favorable determination and allowance of claim 20 is earnestly solicited.

Conclusion

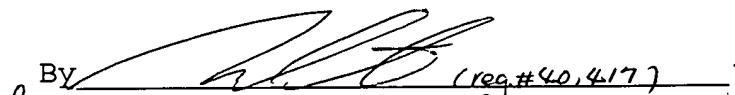
Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (Reg. No. 40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s): One (1) replacement drawing sheet - Fig. 8

AMENDMENTS TO THE DRAWINGS

Attached hereto is one (1) sheet of corrected drawings that comply with the provisions of 37 C.F.R. § 1.84. The corrected drawings incorporate the following drawing changes:

In Fig. 8, reference numeral --37-- has been added to indicate the inking apparatus.

It is respectfully requested that the corrected formal drawings be approved and made a part of the record of the above-identified application.